



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT

Application No.: 10/807,920
Filing Date: March 24, 2004
Applicant: Osamu SHINKAWA
Group Art Unit: 2861
Examiner: Brian J. Goldberg
Title: DROPLET EJECTION APPARATUS AND METHOD OF
DETECTING EJECTION FAILURE IN DROPLET EJECTION
HEADS
Attorney Docket: 9319A-00742

Director of the United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

II. COPIES

A. ☒ Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed, other than U.S. patents and U.S. patent application publications unless required by the Office; (iii) each unpublished U.S. application listed below in Section IV (i.e., including the specification, claims, and any drawing of the application, or that portion of the application which caused it to be listed, including any claims directed to that portion), except for such applications filed on or after June 30, 2003, pursuant to the Waiver of the Copy Requirement in 37 C.F.R. 1.98 (OG Notice dated October 19, 2004); and (iv) all other information or that portion which caused it to be listed.

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B. ☐ Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C. ☐ This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search report are listed on the attached Form 1449 for consideration by the Examiner and for listing on any patent resulting from this application. If the International Search report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g).)

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. ☐ Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B. ☒ A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1. ☒ See the attached foreign patent office communication from a counterpart foreign application. China.

2. ☒ English translations are provided: as indicated on the attached Form HDP-1449.

3. ☒ Other: CN 1241490 corresponds to US 6,220,692; and CN 1103029 corresponds to US 5,563,634.

C. ☐ The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. ☒ The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does (do) not waive the confidentiality provisions of 35 U.S.C. § 122.

Serial No.

Filing Date

Inventors

<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventors</u>
10/802,675	03/17/2004	Osamu SHINKAWA
10/797,595	03/10/2004	Yusuke SAKAGAMI
10/797,594	03/10/2004	Yusuke SAKAGAMI
10/806,031	03/22/2004	Koji HIGUCHI
10/806,030	03/22/2004	Koji HIGUCHI
10/824,335	04/14/2004	Osamu SHINKAWA
10/807,921	03/24/2004	Osamu SHINKAWA

B. ☒ Statement of Common Ownership Under 35 U.S.C. § 103(c)

Applicants, through their undersigned representative, make the following statement as to common ownership to disqualify the reference under 35 U.S.C. 103(c) as prior art:

Application No. 10/807,920 (the present application) and Application Nos. 10/802,675, 10/787,595, 10/797,594, 10/806,030, 10/806,031, 10/824,335, and 10/807,921 were each, at the time the invention of Application No. 10/807,920 was made, owned by, or subject to an obligation of assignment to, Seiko Epson Corporation.

V. THIS IDS IS BEING FILED UNDER

A. ☐ 37 C.F.R. § 1.97(b): (check only one box)

1. ☐ within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.
2. ☐ within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.
3. ☐ before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).
4. ☐ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. ☒ 37 C.F.R. § 1.97(c): (check only one box)

before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1. ☒ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

2. ☐ See the certification below. No fee is required.

C. ☐ **37 C.F.R. § 1.97(d):**

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. ☐ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. **CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)**

The undersigned hereby certifies that:

A. ☐ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or

B. ☐ no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C. ☐ some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. **STATEMENT UNDER 37 C.F.R. 1.704(d)**

The undersigned hereby states that:

☐ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VIII. PAYMENT OF FEES (check only one box)

A. ☐ A check in the amount of \$180.00 is enclosed for the above identified fee.

B. ☐ Please charge Deposit Account No. 50-3213 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 50-3213.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 50-3213.

Respectfully submitted,

Dated: March 21, 2007

By: 

Gregory Schivley
Reg. No. 27,382
Bryant E. Wade
Reg. No. 40,344

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GGG/BEW/pvd



FORM HDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

Sheet 1 of 3

ATTORNEY DOCKET NO.	SERIAL No.
9319A-000742	10/807,920
APPLICANT	
Osamu SHINKAWA	
FILING DATE	GROUP
March 24, 2004	2861

U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		4,301,459	11/1981	Isayama, et al.		
2.		4,484,199	11/1984	Watanabe, Masato		
3.		4,498,088	02/1985	Kanayama, Yoshio		
4.		4,625,220	11/1986	Nagashima, Yoshitake		
5.		4,695,852	09/1987	Scardovi, Alessandro		
6.		4,768,045	08/1988	Koto, Hanuhiko		
7.		5,072,235	12/1991	Slowik, et al.		
8.		5,371,528	12/1994	Izumida, et al.		
9.		5,563,634	10/08/1996	Fujii, et al.		
10.		5,581,287	12/1996	Baezner, et al.		
11.		5,731,826	03/1998	Hirano, Hirofumi		
12.		5,995,801	11/1999	Katsuta, et al.		
13.		6,010,205	01/2000	Billet, Donald R.		
14.		6,048,045	04/2000	Nohata, et al.		
15.		6,076,914	06/2000	Imai, Koji		
16.		6,145,966	11/2000	Hotomi, et al.		
17.		6,168,263	01/2001	Nojima, et al.		
18.		6,220,692	04/24/2001	Iwaya, et al.		
19.		6,238,112	05/2001	Girones, et al.		
20.		6,257,694	07/2001	Tokumaru, et al.		

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM HDP-1449 (Based on Form PTO-1449) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Sheet 2 of 3	ATTORNEY DOCKET NO.	SERIAL NO.
	9319A-000742	10/807,920
	APPLICANT	
	Osamu SHINKAWA	
	FILING DATE	GROUP
	March 24, 2004	2861

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
21.		6,322,190	11/2001	Kono, et al.		
22.		6,565,185	05/2003	Endo, Hironari		
23.		6,811,238	11/2004	Shingyohuchi, Mitsuru		
24.		6,820,955	11/2004	Usui, Toshiki		
25.		2002/0021325	02/2002	Koitabashi, et al.		
26.		2002/0027575	03/2002	Bruch, et al.		
27.		2002/0036667	03/2002	Shingyohuchi, Mitsuru		
28.		2002/0039120	04/2002	Otsuka, et al.		
29.		2002/0089562	07/11/2002	Simons, et al.		
30.		2002/0105555	08/2002	Tsukada, et al.		
31.		2002/0130918	09/2002	Hayakawa, et al.		
32.		2002/0170353	11/2002	Usui, et al.		
33.		2003/0007032	01/2003	Ho, Chien-Hsien		
34.		2003/0043216	03/2003	Usui, et al.		
35.		2003/0156149	08/2003	Choi, Kyung-chool		
36.		2004/0001116	01/2004	Wouters, et al.		
37.		2004/0056915	03/2004	Miyazawa, Takashi		
38.		2004/0165016	08/2004	Oyen, Johannes P.H.		
39.		2004/0252144	12/2004	Higuchi, et al.		
40.		2005/0128232	06/2005	Shinkawa, Osamu		

Examiner:	Date Considered:
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EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM HDP-1449 (Based on Form PTO-1449) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Sheet 3 of 3	ATTORNEY DOCKET NO.	SERIAL No.
	9319A-000742	10/807,920
	APPLICANT	
	Osamu SHINKAWA	
	FILING DATE	GROUP
	March 24, 2004	2861

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
41.		2005/0128323	06/2005	Choi, Kwang-Cheol		

FOREIGN PATENT DOCUMENTS							
Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation *	
						Yes	No
1.		CN 1103029	05/31/1995	China			X
2.		CN 1241490	01/19/2000	China			X
3.		EP 0985533 A1	03/2000	EPO		N/A	

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
1.		Patent abstracts of Japan regarding Publication No. 08-309963 published 11/26/1996.
2.		Communication from China Patent Office regarding counterpart application.

*One or more of the English translation documents submitted herewith may be Abstracts only or partial machine created translations from the Japanese Patent Office. As such, the submitter does not necessarily vouch for their accuracy. Additional information may be obtained from the Japanese Patent Office web site at www.jpo.go.jp

Examiner:	Date Considered:
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